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10/722,234	11/25/2003	David W. Herbage	A310429.IUS	6684
7590		06/30/2009	EXAMINER	
H. Roy Berkenstock Wyatt, Tarrant & Combs, LLP Suite 800 1715 Aaron Brenner Drive Memphis, TN 38120-4367		CLEMENT, MICHELLE RENEE		
		ART UNIT	PAPER NUMBER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* DAVID W. HERBAGE

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Appeal 2008-006338  
Application 10/722,234  
Technology Center 3600

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Decided:<sup>1</sup> June 30, 2009

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*Before:* LINDA E. HORNER, JOHN C. KERINS and  
STEVEN D.A. McCARTHY, *Administrative Patent Judges.*

McCARTHY, *Administrative Patent Judge.*

DECISION ON APPEAL

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<sup>1</sup> The two month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304 (2008), begins to run from the Decided Date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or the Notification Date (electronic delivery).

1       The Appellant appeals under 35 U.S.C. § 134 (2002) from the  
2 Examiner's decision finally rejecting claims 44 and 46-53 under 35 U.S.C.  
3 § 103(a) (2002) as being unpatentable over Becker (US 4,662,265, issued  
4 May 5, 1987), Gassler (US 4,681,014, issued Jul. 21, 1987), Grosso (US  
5 5,425,514, issued Jun. 20, 1995) and Finkelstein (US 3,245,318, issued Apr.  
6 12, 1966); and from the final rejection of claim 54 under § 103(a) as being  
7 unpatentable over Becker, Gassler, Grosso, Finkelstein and Null (US  
8 4,149,166, issued Apr. 10, 1979). We have jurisdiction under 35 U.S.C.  
9 § 6(b) (2002).

10      We REVERSE.

11      Claim 44 is the sole independent claim on appeal:

12  
13           44. A countermeasure system for  
14           vertically launching a countermeasure cartridge  
15           trained only in azimuth comprising:  
16            a base for supporting the system;  
17            a launch tube having a central axis, the tube  
18            being disposed substantially vertically on the base,  
19            the tube having a zero twist longitudinal keyway  
20            therein for effecting non-rotational, axial  
21            movement relative thereto;  
22            means for rotating the launch tube about its  
23            axis for training the countermeasure in azimuth  
24            while disposed on the base;  
25            a countermeasure cartridge receivable within  
26            the tube, having propulsion means for launching  
27            the cartridge longitudinally out of the tube along  
28            its axis;  
29            the countermeasure cartridge having a guide  
30            key cooperable with the tube longitudinal keyway  
31            said guide key and said keyway being disposed for  
32            interaction to effect non-rotational axial movement  
33            throughout a substantial portion of the launch;

1                   the countermeasure cartridge having a  
2                   canard disposed thereon for adjustment of the pitch  
3                   of the cartridge during flight after launch from the  
4                   tube.  
5

6                 The Examiner finds that Becker discloses a launch tube capable of  
7                 assuming a vertical orientation and of rotating, when in its vertical  
8                 orientation, about its own axis. (Ans. 4.) The Appellant argues that Becker  
9                 neither discloses nor suggests a launch tube capable of being disposed  
10                substantially vertically. (Reply Br. 2-3.) Based on this argument, the  
11                Appellant contends that Becker fails to disclose rotating the launch tube  
12                about its axis for training a countermeasure in azimuth while disposed on a  
13                base. (App. Br. 8; Reply Br. 3.) The Appellant further contends that the  
14                Examiner failed to articulate reasoning with some rational underpinning  
15                sufficient to support the conclusion that one of ordinary skill in the art would  
16                have had reason to combine the teachings of Becker, Gassler, Grosso and  
17                Finkelstein (and, in the case of claim 53, Null) to provide Becker's  
18                arrangement with a launch tube capable of being disposed substantially  
19                vertically. (Reply Br. 5-6.)

20                Becker discloses a vehicle mounted arrangement including support  
21                bodies 1 and 2 for horizontally orienting a rotatable weapon support  
22                platform 9. (Becker, col. 2, ll. 28-41.) Becker provides this arrangement to  
23                address a problem with the horizontal orientation of weapon systems which  
24                are adjustable to a steep firing angle such as howitzers, anti-aircraft cannons  
25                and mortars. (Becker, col. 1, ll. 7-12.) Becker teaches effecting the  
26                horizontal orientation of the weapon support platform 9 by relative rotation  
27                of the support bodies 1, 2. (Becker, col. 2, ll. 51-55.) A bearing 21c

1 positioned between the weapon support platform 9 and the support body 1  
2 permits a lateral motorized adjusting drive 28 to rotate the platform 9 about a  
3 vertical axis 11. (Becker, col. 2, l. 63 – col. 3, l. 1.)

4 Becker's weapon support platform 9 mounts a weapon 5. (Becker,  
5 col. 2, ll. 55-63.) Fig. 1 of Becker depicts the weapon 5 as a tube. Becker  
6 describes the weapon 5 as being mounted on a trunnion bearing 35 for  
7 swinging about a horizontal axis. (Becker, col. 2, ll. 55-63 and Fig. 1.) Fig.  
8 1 of Becker shows the trunnion as being mounted so as to intersect the  
9 vertical axis 11.

10 Becker does not expressly disclose that the weapon 5 is capable of  
11 being swung into a vertical orientation. Furthermore, the mere fact that the  
12 weapon 5 is capable of swinging about the axis of the trunnion 35 through  
13 an unspecified arc does not imply reason to believe that the weapon 5 is  
14 capable of swinging all of the way to a vertical orientation. Since Becker's  
15 arrangement addresses a problem with weapon systems adjustable to fire at  
16 steep firing angles but not necessarily vertically, the nature of Becker's  
17 arrangement would not have provided one of ordinary skill in the art reason  
18 to enable the weapon 5 to swing through a vertical orientation. Since the  
19 teachings of Becker would not have disclosed a weapon 5 capable of  
20 swinging into a vertical orientation or provided one of ordinary skill in the  
21 art reason to enable the weapon 5 to swing through a vertical orientation,  
22 Becker would not have disclosed or suggested rotating the weapon 5 about  
23 its own axis when rotating the weapon support platform 9 about the vertical  
24 axis 11.

25 The Examiner articulates no reasoning other than the erroneous  
26 finding that Becker discloses a weapon rotatable into a vertical orientation to

1 support the conclusion that the teachings of Becker, Gassler, Grosso,  
2 Finkelstein (and, in the case of claim 54, Null) would have led one having  
3 ordinary skill in the art to provide Becker's arrangement with a launch tube  
4 capable of being disposed substantially vertically or to provide Becker's  
5 arrangement with means for rotating the launch tube about the axis of the  
6 launch tube for training a countermeasure in azimuth while disposed on a  
7 base. (See Ans. 4-6 and 7.) Therefore, the Appellant has shown that the  
8 Examiner erred in rejecting claim 44 and its dependent claims 46-53 under  
9 § 103(a) as being unpatentable over Becker, Gassler, Grosso and Finkelstein.  
10 In addition, the Appellant has shown that the Examiner erred in rejecting  
11 claim 54, which depends from claim 44, under § 103(a) as being  
12 unpatentable over Becker, Gassler, Grosso, Finkelstein, and Null.

## DECISION

We REVERSE the rejections of claims 44 and 46-54.

**REVERSED**

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